The Balkan Environment Center and the Balkan Wildland Fire Observatory

Ioannis Gitas – George Zalidis





The Balkan Environment Center (BEC)

Environmental Monitoring

Environmental quality, threats, pressures and impacts (e.g. erosion, floods,...+ fires)

| Monitoring Indicators | Operational - Real | time monitoring |
|--------------------------|--------------------|--------------------|
| Decision Support | Early Warning | Risk Assessment |

The Balkan Wildland Fire Observatory

Preparatory actions

- Prepare Cooperation Agreement between the UNISDR Regional Fire Monitoring Center (RFMC) and the 'Balkan Wildland Fire Observatory'
- Set Unit objectives
- Personnel selection
- Search for funding opportunities
- **Existing facilities and expertise**
- Available facilities
- Related expertise

THE GLOBAL FIRE MONITORING CENTER (GFMC) GLOBAL WILDLAND FIRE NETWORK UNISDR WILDLAND FIRE ADVISORY GROUP UNECE / FAO TEAM OF SPECIALISTS ON FOREST FIRE

> Prof. Dr. George Zalidis Director, Balkan Environment Center Loutron 16 57200 Lagadas Greece

zalidis@acro.auth.or



nternational Strategy for Disaster Reduction

Prof. Dr. Dr.h.c. Johann G. Goldammer Coordinator

 Pre Ecology Research Group Max Planck Institute for Chemistry cito Prelburg University Georges-Koshler-Allee 75 79110 Freiburg, Germany Tel: +49-761-808012 Iohann.oc/demnet/Dire.or/-heburg. http://www.fre.or/-heburg.de

Date: 11 January 2013

Proposal for a Cooperation Agreement between the UNISDR Regional Fire Monitoring Center (RFMC) and the Balkan Environment Center

Dear colleague Zalidis

In following up earlier discussions for developing joint activities in fire monitoring, management and capacity building, as well as for operational support in the Balkan Region and adjoining countries, a small working group had been established for realizing first preparatory steps.

The working group consists of Prof. Dr. Nikola Nikolov, Head of the Regional Fire Monitoring Center in Skopje, Dr. Ioannis Gitas from Artistotle University of Thessaloniki, Dr. Ioannis Mitsopoulos, European Center for Forest Fires (ECFF), Athens, and the Global Fire Monitoring Center (GFMC), Freiburg, Germany.

During the last days we have drafted a proposal for future cooperation between the RFMC and Balkan Environment Center, with a close work relationship to GFMC and the UNISDR Global Wildland Fire Network and the GOFC/GOLD Fire Implementation Team. Please find the draft proposal attached. Please feel free to suggest any changes / amendments to the attached draft.

If this draft working document, is serving its initial purposes for talking with partners and sponsors, please feel fee to use it, e.g. at the meeting with the German Embassy and the German Foreign Office next week (Dr. Gitas informed me about it). If the issue of forest fires would be raised in the meeting with the German delegation, please convey the message that I am available to provide more information for the official German side. You may also make the German side aware of the fact that the Global Fire Monitoring Center was founded in 1986 with the financial support of the German Foreign Office and has implemented a number of partner projects in fire management under the scope and finances of the humanfarian assistance.

Looking forward to hear from you I remain Yours faithfully

Halann

Johann G. Goldammer

encl.

cc Prof. Nikolov, Dr. Gitas, Dr. Mitsopoulos

The GPMC is serving as Secretarist of the <u>Global Wildard Pire Network</u> and the <u>Wildard Pire Advisory Group</u> – an Advisory Body and <u>Thematic Platform</u> of the United Nations affiliated to the <u>United Nations International Strategy</u> <u>for Disaster Redships</u> (UNISDR). GPMC is chairing the <u>UNISCEPAC Team of Secretariate on Forest Pire</u> GPMC is an <u>Associated Institute of the United Nations University</u> (UNU).



Cooperation Agreement between the UNISDR Regional Fire Monitoring Center (RFMC) and the Balkan Environment Center

Draft 9: 11 January 2013

Introduction: Rationale for Regional Cooperation in Fire Management

In recognition of the need to support countries in the South East Europe / Balkans and South Caucasus region in enhancing national capacities in fire management by regional cooperation, the Global Fire Monitoring Center (GFMC)¹, based in Germany, with the endorsement and financial support of the Foreign Office of the Federal Republic of Germany and subsequently by the Council of Europe, through the European and Mediterranean Major Hazards Agreement (EUR-OPA)², set up by the Committee of Ministers of the Council of Europe, in 2005 decided to establish the Regional Southeast Europe / Caucasus Wildland Fire Network under the auspices of the United Nations International Strategy for Disaster Reduction (UNISDR) Global Wildland Fire Network. The objectives / mission of the Network is to Initiate and enhance regional dialogue and pragmatic action to cooperate in fire management, a task that has been successfully implemented since 2005.

Encouraged by the achievements of the Regional Network¹, the GFMC and the Council of Europe supported the establishment of the Regional Fire Monitoring Center for the Southeast Europe / Caucasus Region (RFMC) in 2010.⁴ The RFMC is based at the Faculty of Forestry, Skopje, Former Yugoslav Republic of Macedonia.

With the support of the GFMC the outreach work and cooperation successively included countries of the Eastern Mediterranean, the Near East and the Middle East. Following the request of countries, the regional scope of the network will be enhanced to include countries of the Near East and the Middle East.

The Regional Network and the RFMC require technical support in remote sensing of wildland fire precursors, detection of active fires, their development, final size and environmental impacts.

Therefore an alliance with the Balkan Environment Center to serve these need.

Proposal for an Institutional Cooperation between Regional Fire Monitoring Center and the Balkan Environment Center

The Regional Fire Monitoring Center and the Balkan Environment Center have different scopes and fields of excertise and institutional capabilities.

The RFMC is serving the countries of the Region in supporting to:

- Develop national policies and implementation strategies to address fire management in forests and rural landscapes
- Support countries to obtain support for implementation
- Build capacities in fire management (human and technical resources)
- Foster transboundary cooperation in fire management in the region, including facilitation of cooperation procedures and agreements for mutual assistance in wildfire emergency situations
- Represent the geographic and cultural region in the UNISDR Global Wildland Fire Network to
 ensure regional inputs in the global dialogue and action on wildland fire
- Conducting national and regional training courses, continuous education, seminars, workshops, conterences in the field of wildland fire management

http://www.rfmsc.

http://www.fire.uni-freiburg.de/

http://www.cos.int/Udd4/majorha.zards/centres/presentation/afmc_EN.asp http://www.fire.uni-freibung.de/Gjobal/Veteorice/SEEurope/SEEurope.html

Unit Objectives

- GENERAL: to promote 'Forest Fires RS/GIS related' research and training in the Balkan region
- To develop 'Forest Fires RS/GIS' web-based services* with updated information in relation to fire danger estimation, burned area mapping and post-fire recovery monitoring
- To promote Public Participation GIS (PPGIS) as a tool to enhance communication between the different interested parties (forest service, fire service, etc.)

*Web site to be developed on the existing BEC e-platform

Unit Objectives (2)

- To provide expert advice and knowledge transfer
- To assist 'Capacity building' in the region with:
 - the organisation of (and/or participation in) national and international training courses and long-life training programs
 - the organisation (and/or support) of seminars, workshops, and conferences on the application of Remote Sensing and GIS in forest fire management
- To promote networking and collaboration between interested parties
- To represent the region in the GOFC/GOLD Fire IT

Personnel

| Permanent Staff | I. Gitas (Scientific Coordinator) A. Dimitrakopoulos (Advisor Forest Fires) G. Mallinis (Advisor Remote Sensing/GIS) |
|---------------------------|--|
| | |
| Interim-Contract staff | I. Mitsopoulos (Senior Researcher and International collaboration) |
| (Non-Permanent) | • H. Minakou (Researcher, Administration, International collaboration) |
| | |
| Post Graduate students | Young researcher Young researcher |

Funding opportunities

Project proposals submitted for funding:

- National Observatory of Forest Fires (Hellenic Ministry of Environment Energy and Climate Chance – Green Fund) Proposed Budget: 210K
- AFIS Adriatic cross-border wildfire information system (IPA Crossborder Cooperation Programme) Proposed Budget: 600K

To be submitted soon

• Territorial Cooperation Programme GR-BL



Objectives:

- Development, Mapping and Evaluation of an Empirical Forest Fire Danger Index for Northern Greece
- Forest Fuel Type Mapping at National Level
- Operational Burned Area Mapping at National Level
- Knowledge transfer and dissemination to the surrounding Balkan countries



AFIS - Adriatic cross-border wildFire Information System

Aim:

• The aim of the project is to improve and strengthen institutional capabilities related to the protection, prevention and monitoring of wildfires through the application of GIS and Remote Sensing

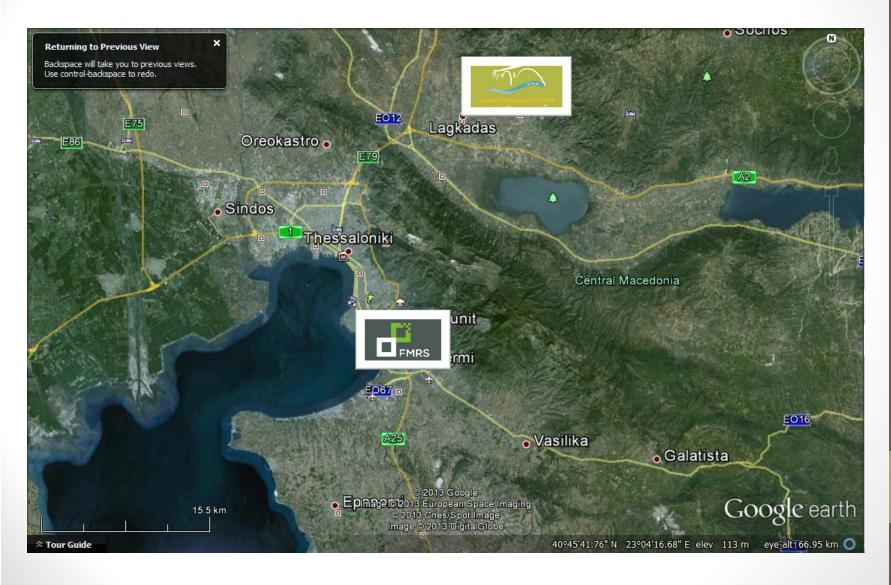
Specific objectives include:

- To develop a common (regional) fire risk index by using EO data and GIS
- To develop and test a common (regional) post fire monitoring assessment methods
- To develop and test a common (regional) system for fire damage assessment considering economic losses, social impact and the impact on the environment
- Also to promote institutional cooperation in the Adriatic region

Participants

• Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Serbia, Slovenia

Facilities



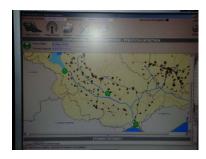
Facilities



















Relevant Expertise











Laboratory of Forest Management & Remote Sensing

School of Forestry & Natural Environment ARISTOTLE UNIVERSITY OF THESSALONIKI (AUTh)

Tel: +30 2310 992699, Fax: +30 2310 992731 E-mail: igitas@for.auth.gr

Research Team









The Laboratory currently employees 17 people:

- 3 Permanent Academic Staff
- 1 Permanent Researcher
- 1 Secretary
- 4 Research Associates and
- 8 Post-graduate students (MSc, PhD)





Activities







Research

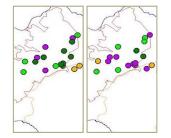
- Remote Sensing, GIS, Forest Fires, Land cover/use mapping, Forest mapping, Forest Management, Soil erosion, Landscape Ecology
- Education
 - $\circ\,$ graduate and postgraduate courses
- Dissemination of knowledge to the society

 operational applications, lectures, seminars, national and international conferences, networks

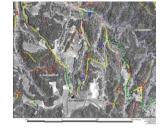
Research priorities



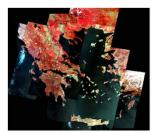


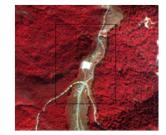


- Applications in forest fire research
- Forest management
- LULUCF Kyoto protocol (Forest species mapping, biomass estimation)
- Land cover/use mapping
- Landscape ecology
- Soil erosion
- Environmental degradation assessment
- Ecosystem dynamics

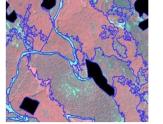




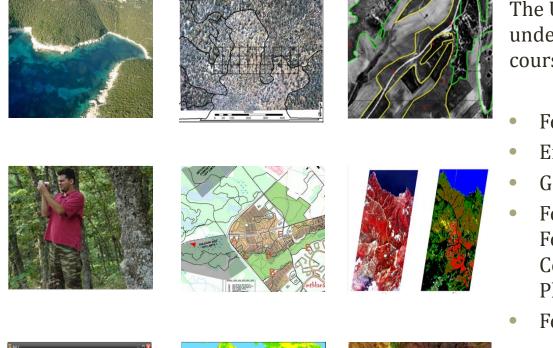








Educational activities



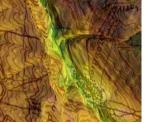
The Unit offers the following undergraduate and postgraduate courses :

- Forest Aerial Photography
- Environmental Remote Sensing
- Geographic Information Systems
- Forest Management, Applied Forest Management, Compilation of Management Plans
- Forest Land Mapping

Also, it offers lectures and seminars in cooperation with public and private organizations, institutes, universities and companies.



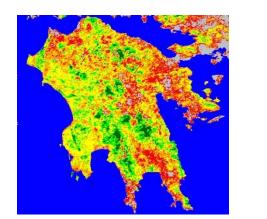


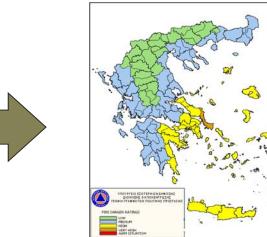


Collaboration with International organisations and Greek end-users

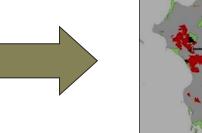


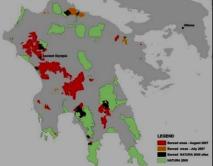
Involvement in operational applications of RS





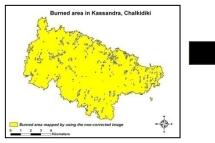


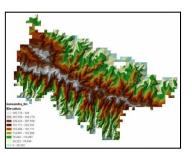


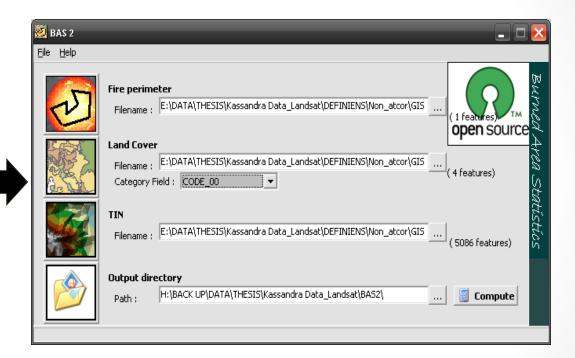


Open source GIS software development









Publications in impact factor journals

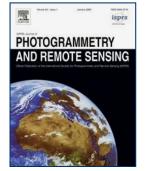
Members of the Laboratory have published the results of the research conducted in the Laboratory in many international peer-review journals:

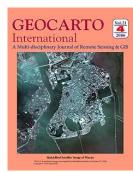
















Publicity

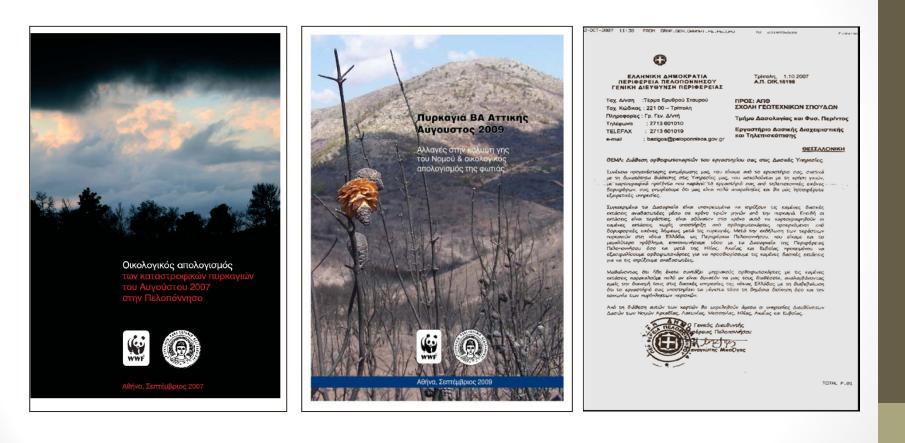






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Practical value of our work



A selection of granted research projects

































Other activities

- The unit is a member of EARSeL chairing the EARSeL Special Interest Group on Forest Fires (EARSeL FFSIG)
- Members of the group :

 are editors / guest editors in international journals and conference proceedings

 are members of the scientific or organising committee of different national and international events

 participate in national (Civil protection, Ministry of Environment, Energy and Climate Change) as well as international committees (FAO FRA RSS 2010)



Thank you very much for your attention